# **Didaskon – Semantic eLearning Framework**

Jacek Jankowski, Adam Westerski, and Sebastian Ryszard Kruk

#### **Brief description** (30 words):

Didaskon is a framework for dynamic course composition that derives from informal information sources. The learning objects are selected for the composition based on the semantic annotations of the information and user's profile.

### **Description/Abstract of Presentation** (150 words + 5-6 bullets):

The amount of information is growing dramatically fast nowadays. It is a very difficult time for teachers to keep up with changes; this problem also affects eLearning. Without constant maintenance, electronic courses are also getting outdated. Moreover, all of the current solutions seem to underestimate the potential of Web 2.0 idea. The contemporary eLearning systems deliver predefined, rigid courses which usually do not take into account that users are different from each other.

We would like to present Didaskon, a framework for automated composition of a learning path for a student. The selection and workflow scheduling of learning objects is based mainly on their description and semantically annotated specification of user profile. Didaskon also derives information aggregated by IKHarvester (informal knowledge harvester) from various Social Semantic Information Sources, i.e., wikis, blogs, fora, and other informal source.

#### We will present:

- semantics harvesting for eLearning,
- integration of informal and formal knowledge,
- profiling courses for a user's experience improvement,
- service oriented architecture of eLearning frameworks utilizing semantics.

#### **Additional Information about Presentation**

Didaskon along with few other of eLearning solutions is an outcome of a research project run in collaboration with 7 major Irish eLearning companies. Therefore the results of our research are industry lead and applicable. The current research prototype of Didaskon is available at <a href="http://copernicus.deri.ie/DidaskonNet">http://copernicus.deri.ie/DidaskonNet</a> and the supplement of a knowledge harvesting tool can be accessed directly from <a href="http://notitio.us/">http://notitio.us/</a>

The presenters will be joined by Sebastian Ryszard Kruk, who leads the semantic web research in the eLearning cluster in DERI

#### Speaker's Biography

Jacek Jankowski is a PhD student at DERI, NUI Galway, Ireland. He is an active member of the eLearning and Semantic Web community; He is a leader of Didaskon project in the Semantic Infrastructure Lab in the eLearning Cluster in DERI Galway.

Adam Westerski is a Research Assistant at DERI, NUI Galway, Ireland. He is an active member of the eLearning and Semantic Web community; He is a leader of Didaskon project in the Semantic Infrastructure Lab in the eLearning Cluster in DERI Galway.

### Speaker Books, articles, publications

Jacek Jankowski, Filip Czaja, Jaroslaw Dobrzanski Adapting informal sources of knowledge to e-Learning. In Proceedings of CELT'2007, 5th Annual Teaching and Learning Conference 2007.

A. Westerski, S. R. Kruk, K. Samp, T. Woroniecki, F. Czaja, and C. O'Nuallain. E-learning based on the social semantic information sources. In Proceedings to LACLO'2006, 2006.

### Have you given this presentation before?

Similar material was presented before at LACLO'2006, CELT'2007, EC-TEL'07

#### **Target Audience:**

Content Managers Data Managers

### Track:

Semantic Web
Developing Semantic Applications
Knowledge Engineering and Management
Semantic SOA (Service Oriented Architectures)
Unstructured Information
Data Integration and Mashups

## **Treatment:**

General Research

# 10 keywords describing your presentation:

eLearning, SSIS, data integration, content management, profiling, redland,